L Number	Hits	S arch T xt	DB	Time stamp
1	2	("6180620").PN.	USPAT; US-P PUB; DERWENT	2002/12/05 09:03
-	4551	super xid near5 dismuta$	USPAT; US-PGPUB; DERWENT	2002/12/05 06:54
-	4694	sod or sodm	USPAT; US-PGPUB; DERWENT	2002/12/04 14:15
-	123800	arthritis or rheumat$ or inflammat$ or antiinflammat$	USPAT; US-PGPUB; DERWENT	2002/12/04 14:16
-	991	((superoxide near5 dismuta$) or (sod or sodm)) same (arthritis or rheumat$ or inflammat$ or antiinflammat$)	USPAT; US-PGPUB; DERWENT	2002/12/04 14:17
-	98	(((superoxide near5 dismuta$) or (sod or sodm)) same (arthritis or rheumat$ or inflammat$ or antiinflammat$)) same (manganese or mn)	USPAT; US-PGPUB; DERWENT	2002/12/04 14:17
-	2	("20020128248").PN.	USPAT; US-PGPUB; DERWENT	2002/12/05 09:03

STN search for 09/997974

=> file caplus
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.42	2.63

FILE 'CAPLUS' ENTERED AT 06:56:34 ON 05 DEC 2002
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FILE COVERS 1907 - 5 Dec 2002 VOL 137 ISS 23
FILE LAST UPDATED: 3 Dec 2002 (20021203/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> e salvemini/au

E1	3	SALVELA RITVA/AU
E2	1	SALVELEON RINALDO IBBAROLA/AU
E3	0 -->	SALVEMINI/AU
E4	5	SALVEMINI A/AU
E5	11	SALVEMINI ANTONIO/AU
E6	15	SALVEMINI D/AU
E7	94	SALVEMINI DANIELA/AU
E8	10	SALVEMINI F/AU
E9	3	SALVEMINI FRANCESCA/AU
E10	2	SALVEMINI FRANCESCO/AU
E11	3	SALVEMINI G/AU
E12	6	SALVEMINI M/AU

=> s e6-e7
15 "SALVEMINI D"/AU
94 "SALVEMINI DANIELA"/AU
L2 109 ("SALVEMINI D"/AU OR "SALVEMINI DANIELA"/AU)

=> s l2 and arthritis
27197 ARTHRITIS
2 ARTHRITISES
27197 ARTHRITIS
(ARTHRITIS OR ARTHRITISES)
L3 5 L2 AND ARTHRITIS

=> d scan

L3 5 ANSWERS CAPLUS COPYRIGHT 2002 ACS
CC 1-7 (Pharmacology)
Section cross-reference(s): 14
TI Amelioration of joint disease in a rat model of collagen-induced arthritis by M40403, a superoxide dismutase mimetic
ST SOD mimetic M40403 antiinflammatory antiarthritic rheumatoid arthritis model
IT Anti-inflammatory agents
Antirheumatic agents
Disease models
Rheumatoid arthritis
(amelioration of joint disease in a rat model of collagen-induced arthritis by M40403)
IT 9054-89-1, Superoxide dismutase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(amelioration of joint disease in a rat model of collagen-induced arthritis by M40403)
IT 218791-21-0, M40403
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amelioration of joint disease in a rat model of collagen-induced arthritis by M40403)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):4

L3 5 ANSWERS CAPLUS COPYRIGHT 2002 ACS
IC ICM C07D487-22
ICS A61K031-675; A61K047-16
NCL 514186000
CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 1, 7, 28, 63, 67
TI Substituted pyridino pentaazamacrocycle complexes having superoxide

dismutase activity as therapeutic agents

ST manganese pyridino pentaazacyclopentadecane complex prepn SOD mimic;
superoxide dismutase catalyst mimic manganese pentaazacyclopentadecane complex; antiinflammatory manganese pyridino pentaazacyclopentadecane complex

IT Disproportionation catalysts
(SOD dismutation catalysts; manganese substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of superoxide-related diseases or disorders)

IT Pain
(chronic, severe; prepn. of manganese substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of)

IT Pain
(hyperalgesia; prepn. of manganese substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of)

IT Intestine, disease
(inflammatory; prepn. of manganese substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of)

IT Heart, disease
(ischemia, reperfusion injury; prepn. of manganese substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of)

IT Transition metal complexes
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); CAT (Catalyst use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(macrocyclic compd.; prepn. of manganese/iron substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for therapeutic uses)

IT Drugs of abuse
(opioid abuse; prepn. of manganese substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of)

IT Transplant rejection
(organ; prepn. of manganese substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of)

IT Anti-inflammatory agents
Antihypertensives
Antitumor agents
Organ preservation
Platelet aggregation inhibitors
(prepn. of manganese substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for)

IT Autoimmune disease
Osteoarthritis
Psoriasis

Rheumatoid arthritis
Sepsis
(prepn. of manganese substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of)

IT Injury
(radiation-induced; prepn. of manganese substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of)

IT Macrocyclic compounds
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); CAT (Catalyst use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(transition metal complexes; prepn. of manganese/iron substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for therapeutic uses)

IT 218791-21-0 218791-28-7
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(SOD mimic for therapeutic uses)

IT 60-23-1, 2-Mercaptoethylamine 74-88-4, Methyl iodide, reactions 75-03-6, Ethyl iodide 75-33-2, 2-Mercaptopropane 100-38-9, 2-Diethylaminoethanethiol 107-22-2, Glyoxal 110-89-4, Piperidine, reactions 138-60-3, Chelidamic acid 513-53-1, 2-Mercaptobutane 623-51-8, Ethyl thioglycolate 762-04-9, Diethyl phosphite 931-51-1, Cyclohexylmagnesium chloride 1569-69-3, Cyclohexylmercaptan 2043-61-0, Cyclohexanecarboxaldehyde 2365-48-2, Methyl thioglycolate 4521-31-7, 2-Mercaptobenzyl alcohol 6956-50-9, Ethyl 4,4-dimethoxy-3-oxobutyrate 7217-59-6, 2-Methoxythiophenol 7773-01-5, Manganese dichloride 15570-12-4, 3-Methoxythiophenol 19721-22-3, 3-Mercapto-1-propanol 20439-47-8, (1R,2R)-Diaminocyclohexane 20938-74-3, N-Methylmercaptoacetamide 28276-32-6, Ethyl 4-mercaptobenzoate 41651-93-8, Ethyl 3-mercaptobenzoate 70660-05-8, Diethyl mercaptomethylphosphonate 330626-95-4 331718-73-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(for prepn. of manganese substituted pyridino pentaazacyclopentadecane complexes).

IT 1817-20-5P, 4-Chloro-2,6-bis(hydroxymethyl)pyridine 5371-70-0P, Dimethyl 4-chloro-2,6-pyridinedicarboxylate 311767-60-9P 311767-62-1P 311767-63-2P 311767-64-3P 311767-65-4P, 4-Chloropyridine-2,6-dicarboxaldehyde 330626-77-2P, Dimethyl 4-cyclohexyl-2,6-pyridinedicarboxylate 330626-78-3P, 4-Cyclohexyl-2,6-pyridinedimethanol 330626-79-4P, 4-Cyclohexyl-2,6-pyridinedicarboxaldehyde 330626-84-1P 330626-85-2P 330626-86-3P 330626-87-4P 330626-88-5P 330626-89-6P

330626-90-9P 330626-91-0P 330626-92-1P 331718-74-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(for prepn. of manganese substituted pyridino pentaazacyclopentadecane complexes)

IT 76-83-5, Trityl chloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(for tritylation of diaminocyclohexane)

IT 301664-47-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of manganese/iron substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of superoxide-related diseases or disorders)

IT 311767-56-3P 311767-59-6P 330626-36-3P 330626-41-0P 330626-42-1P
330626-43-2P 330626-45-4P 330626-59-0P 330626-66-9P 330626-69-2P
330626-70-5P 330626-73-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); CAT (Catalyst use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of manganese/iron substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of superoxide-related diseases or disorders)

IT 331718-71-9P
RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of manganese/iron substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of superoxide-related diseases or disorders)

IT 218791-27-6P 301664-32-4P 311767-57-4P 330626-39-6P 330626-40-9P
330626-47-6P 330626-49-8P 330626-51-2P 330626-54-5P 330626-55-6P
330626-56-7P 330626-58-9P 330626-60-3P 330626-61-4P 330626-62-5P
330626-63-6P 330626-64-7P 330626-65-8P 330626-67-0P 330626-68-1P
330626-71-6P 330626-72-7P 330626-74-9P 330626-75-0P 330626-76-1P
331718-72-0P

RL: CAT (Catalyst use); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of manganese/iron substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of superoxide-related diseases or disorders)

IT 9054-89-1, Superoxide dismutase
RL: PRP (Properties)
(prepn. of manganese/iron substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of superoxide-related diseases or disorders)

IT 11062-77-4, Superoxide
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of manganese/iron substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of superoxide-related diseases or disorders)

IT 330626-52-3P 330626-53-4P 330626-57-8P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of manganese/iron substituted pyridino pentaazacyclopentadecane complexes as SOD mimics for treatment of superoxide-related diseases or disorders)

L3 5 ANSWERS CAPLUS COPYRIGHT 2002 ACS
IC ICM A61K031-555
NCL 514185000
CC 1-7 (Pharmacology)
TI SODm therapy for prevention and/or treatment of inflammatory disease
ST inflammatory disease superoxide dismutase mimetic M40403

IT Cytokines
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(inflammatory; superoxide dismutase enzyme mimetic therapy for prevention and treatment of inflammatory disease)

IT Anti-inflammatory agents
Antirheumatic agents
Human
Inflammation
Rheumatoid arthritis
(superoxide dismutase enzyme mimetic therapy for prevention and treatment of inflammatory disease)

IT Reactive oxygen species
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(superoxide dismutase enzyme mimetic therapy for prevention and treatment of inflammatory disease)

IT 7782-44-7D, Oxygen, reactive species 19059-14-4, Peroxynitrite
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(superoxide dismutase enzyme mimetic therapy for prevention and

treatment of inflammatory disease)
IT 9054-89-1, Superoxide dismutase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(superoxide dismutase enzyme mimetic therapy for prevention and treatment of inflammatory disease)
IT 218791-21-0, M40403
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(superoxide dismutase enzyme mimetic therapy for prevention and treatment of inflammatory disease)

L3 5 ANSWERS CAPLUS COPYRIGHT 2002 ACS
CC 14-0 (Mammalian Pathological Biochemistry)
Section cross-reference(s): 1
TI Role of nitric oxide and reactive oxygen species in arthritis
ST review nitric oxide peroxynitrite arthritis antioxidant; antirheumatic drug oxygen radical review
IT Antioxidants
Antirheumatic agents
Arthritis
(role of nitric oxide and reactive oxygen species in arthritis
)
IT Reactive oxygen species
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(role of nitric oxide and reactive oxygen species in arthritis
)
IT 7782-44-7D, Oxygen, reactive species 10102-43-9, Nitric oxide, biological studies 19059-14-4, Peroxynitrite
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(role of nitric oxide and reactive oxygen species in arthritis
)

L3 5 ANSWERS CAPLUS COPYRIGHT 2002 ACS
IC ICM A61K031-00
ICS A61K031-555
CC 1-11 (Pharmacology)
TI Analgesic methods using synthetic coordination compound catalysts for the dismutation of superoxide radicals and the prevention of opioid tolerance
ST coordination compd superoxide radical dismutation analgesic; arthritis analgesic coordination compd superoxide radical dismutation; opioid tolerance coordination compd superoxide radical dismutation
IT Analgesics
Disproportionation catalysts
Drug tolerance
Drug withdrawal

(coordination compd. catalyst for dismutation of superoxide radical, and use for analgesia and opioid tolerance prevention)

IT Opioids
Transition metal complexes
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(coordination compd. catalyst for dismutation of superoxide radical, and use for analgesia and opioid tolerance prevention)

IT Anti-inflammatory agents
(nonsteroidal; coordination compd. catalyst for dismutation of superoxide radical, and use for analgesia and opioid tolerance prevention)

IT 57-27-2, Morphine, biological studies 295-64-7, 1,4,7,10,13-Pentaazacyclopentadecane 7439-96-5D, Manganese, coordination complexes, biological studies 7440-50-8D, Copper, coordination complexes, biological studies 7440-66-6D, Zinc, coordination complexes, biological studies 27577-84-0 119724-38-8 150955-08-1 150955-10-5 150955-11-6 150955-12-7 150955-14-9 150955-15-0 150955-16-1 150955-17-2 150955-18-3 150955-19-4 150955-20-7 150955-21-8 150995-78-1 150996-10-4, SC-52608 150996-12-6 151212-79-2 151212-80-5 151784-17-7 151784-18-8 151907-77-6, SC-54417 153297-85-9 174182-32-2 174182-44-6 174182-59-3 179464-49-4, SC-55858 181371-29-9 181371-30-2 181371-34-6 181783-73-3 186518-81-0 186518-91-2 195813-76-4 218788-31-9 218788-32-0 218788-33-1 218788-34-2 218788-45-5 218788-56-8 218788-57-9 218788-58-0 218788-59-1 218788-61-5 218788-62-6 218788-63-7 218788-64-8 218788-65-9 218788-70-6 218788-74-0 218788-75-1 218788-81-9 218788-82-0 218788-83-1 218788-84-2 218788-85-3 218788-86-4 218788-87-5 218788-95-5 218789-01-6 218789-06-1 218789-10-7 218789-11-8 218789-12-9 218789-13-0 218789-14-1 218789-16-3 218789-17-4 218789-21-0 218789-27-6 218789-28-7 218789-29-8 218789-30-1 218789-31-2 218789-32-3 218789-33-4 218789-34-5 218789-35-6 218789-36-7 218789-37-8 218789-49-2 218789-52-7 218789-53-8 218789-54-9 218789-55-0 218789-56-1 218789-57-2 218789-68-5 218789-72-1 218789-75-4 218789-80-1 218789-92-5 218789-96-9 218790-01-3 218790-07-9 218790-12-6 218790-17-1 218790-26-2 218790-34-2 218790-39-7 218790-45-5 218790-54-6 218790-63-7 218790-72-8 218790-81-9 218790-88-6 218790-96-6 218791-00-5 218791-01-6 218791-07-2 218791-17-4 218791-18-5 218791-19-6 218791-20-9 218791-21-0 218791-22-1 218791-23-2 218791-24-3 218791-25-4 218791-26-5 218791-27-6 218791-28-7 218791-29-8
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(Uses)
(coordination compd. catalyst for dismutation of superoxide radical, and use for analgesia and opioid tolerance prevention)
IT 363-24-6, PGE2 11062-77-4, Superoxide
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(coordination compd. catalyst for dismutation of superoxide radical, and use for analgesia and opioid tolerance prevention)
IT 39391-18-9, Cyclooxygenase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(inhibitors; coordination compd. catalyst for dismutation of superoxide radical, and use for analgesia and opioid tolerance prevention)

ALL ANSWERS HAVE BEEN SCANNED

=> file stnguide

COST IN U.S. DOLLARS	ENTRY	SINCE FILE SESSION	TOTAL
FULL ESTIMATED COST		6.47	9.10

FILE 'STNGUIDE' ENTERED AT 06:58:44 ON 05 DEC 2002
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Nov 29, 2002 (20021129/UP).

=> FIL REGISTRY

COST IN U.S. DOLLARS	ENTRY	SINCE FILE SESSION	TOTAL
FULL ESTIMATED COST		0.18	9.28

FILE 'REGISTRY' ENTERED AT 07:00:45 ON 05 DEC 2002
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STRUCTURE FILE UPDATES: 3 DEC 2002 HIGHEST RN 475040-20-1
DICTIONARY FILE UPDATES: 3 DEC 2002 HIGHEST RN 475040-20-1

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> S 218791-21-0/RN

L4 1 218791-21-0/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L4 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 5.53 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L4 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
RN 218791-21-0 REGISTRY
CN Manganese, dichloro[(4aR,13aR,17aR,21aR)-
1,2,3,4,4a,5,6,12,13,13a,14,15,16
,17,17a,18,19,20,21,21a-eicosahydro-11,7-nitrilo-7H-
dibenzo[b,h][1,4,7,10]tetraazacycloheptadecine-
.kappa.N5,.kappa.N13,.kappa.N18,.kappa.N21,.kappa.N22]-,
(PB-7-11-2344'3')- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN M 40403
MF C21 H35 Cl2 Mn N5
CI CCS, COM
SR CA
LC STN Files: BIOSIS, BIOTECHNO, CA, CAPLUS, DRUGNL,
DRUGUPDATES, EMBASE,
IPA, TOXCENTER, USPATFULL

19 REFERENCES IN FILE CA (1962 TO DATE)

19 REFERENCES IN FILE CAPLUS (1962 TO DATE)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=> FILE REG

COST IN U.S. DOLLARS	SINCE FILE ENTRY	SESSION	TOTAL
FULL ESTIMATED COST		2.34	11.62

FILE 'REGISTRY' ENTERED AT 07:01:39 ON 05 DEC 2002
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DICTIONARY FILE UPDATES: 3 DEC 2002 HIGHEST RN 475040-20-1

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> STR 218791-21-0

WARNING. STEREO DATA NOT INCLUDED IN MODEL (NOT SEARCHABLE)
:END

L5 STRUCTURE CREATED

=> S L5 EXA SAM

SAMPLE SEARCH INITIATED 07:01:43 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 0 TO ITERATE

100.0% PROCESSED 0 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 0 TO 0
PROJECTED ANSWERS: 0 TO 0

L6 0 SEA EXA SAM L5

=>

=>
NO ANSWERS WERE FOUND

=> FILE REG

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.38	12.00

FILE 'REGISTRY' ENTERED AT 07:01:55 ON 05 DEC 2002
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DICTIONARY FILE UPDATES: 3 DEC 2002 HIGHEST RN 475040-20-1

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

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PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> STR 218791-21-0

WARNING. STEREO DATA NOT INCLUDED IN MODEL (NOT SEARCHABLE)
:END

L7 STRUCTURE CREATED

=> S L7 EXA FUL

FULL SEARCH INITIATED 07:01:58 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 25 TO ITERATE

100.0% PROCESSED 25 ITERATIONS 8 ANSWERS
SEARCH TIME: 00.00.01

L8 8 SEA EXA FUL L7

=>

=> D SCAN

L8 8 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN Manganese, dichloro[(4aR,13aS,17aR,21aS)-
1,2,3,4,4a,5,6,12,13,13a,14,15,16
,17,17a,18,19,20,21,21a-eicosahydro-11,7-nitrilo-7H-
dibenzo[b,h][1,4,7,10]tetraazacycloheptadecine-
.kappa.N5,.kappa.N13,.kappa.N18,.kappa.N21,.kappa.N22]-, (PB-7-11-
23654)-
(9CI)
MF C21 H35 Cl2 Mn N5
CI CCS

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):7

L8 8 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN Manganese, dichloro[(4aS,13aS,17aR,21aR)-
1,2,3,4,4a,5,6,12,13,13a,14,15,16
,17,17a,18,19,20,21,21a-eicosahydro-11,7-nitrilo-7H-
dibenzo[b,h][1,4,7,10]tetraazacycloheptadecine-
.kappa.N5,.kappa.N13,.kappa.N18,.kappa.N21,.kappa.N22]-,

(PB-7-11-2344'3')- (9CI)
MF C21 H35 Cl2 Mn N5
CI CCS

L8 8 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN Manganese, dichloro[(4aR,13aS,17aR,21aR)-
1,2,3,4,4a,5,6,12,13,13a,14,15,16
,17,17a,18,19,20,21,21a-eicosahydro-11,7-nitrilo-7H-
dibenzo[b,h][1,4,7,10]tetraazacycloheptadecine-
.kappa.N5,.kappa.N13,.kappa.N18,.kappa.N21,.kappa.N22]-, (PB-7-11-
23564)-
(9CI)
MF C21 H35 Cl2 Mn N5
CI CCS

L8 8 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN Manganese, dichloro[(4aR,13aR,17aS,21aS)-
1,2,3,4,4a,5,6,12,13,13a,14,15,16
,17,17a,18,19,20,21,21a-eicosahydro-11,7-nitrilo-7H-
dibenzo[b,h][1,4,7,10]tetraazacycloheptadecine-
.kappa.N5,.kappa.N13,.kappa.N18,.kappa.N21,.kappa.N22]-,
(PB-7-11-2344'3')- (9CI)
MF C21 H35 Cl2 Mn N5
CI CCS

L8 8 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN Manganese, dichloro[(4aR,13aR,17aR,21aR)-
1,2,3,4,4a,5,6,12,13,13a,14,15,16
,17,17a,18,19,20,21,21a-eicosahydro-11,7-nitrilo-7H-
dibenzo[b,h][1,4,7,10]tetraazacycloheptadecine-
.kappa.N5,.kappa.N13,.kappa.N18,.kappa.N21,.kappa.N22]-,
(PB-7-11-2344'3')- (9CI)
MF C21 H35 Cl2 Mn N5
CI CCS, COM

L8 8 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN Manganese, dichloro[(4aR,13aR,17aR,21aS)-
1,2,3,4,4a,5,6,12,13,13a,14,15,16
,17,17a,18,19,20,21,21a-eicosahydro-11,7-nitrilo-7H-
dibenzo[b,h][1,4,7,10]tetraazacycloheptadecine-
.kappa.N5,.kappa.N13,.kappa.N18,.kappa.N21,.kappa.N22]-, (PB-7-11-
23564)-
(9CI)
MF C21 H35 Cl2 Mn N5
CI CCS

L8 8 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN Manganese, dichloro[(4aR,13aS,17aS,21aR)-
1,2,3,4,4a,5,6,12,13,13a,14,15,16
,17,17a,18,19,20,21,21a-eicosahydro-11,7-nitrilo-7H-
dibenzo[b,h][1,4,7,10]tetraazacycloheptadecine-
.kappa.N5,.kappa.N13,.kappa.N18,.kappa.N21,.kappa.N22]-, (PB-7-11-
23564)-
(9CI)
MF C21 H35 Cl2 Mn N5
CI CCS

L8 8 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN Manganese, dichloro[(4aS,13aS,17aS,21aS)-
1,2,3,4,4a,5,6,12,13,13a,14,15,16
,17,17a,18,19,20,21,21a-eicosahydro-7,11-nitrilo-7H-dibenzo[b,h]-
5,13,18,21-tetraazacycloheptadecine-
.kappa.N5,.kappa.N13,.kappa.N18,.kappa
.N21,.kappa.N22]-, (PB-7-11-2344'3')- (9CI)
MF C21 H35 Cl2 Mn N5
CI CCS

ALL ANSWERS HAVE BEEN SCANNED

=> file caplus

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FILE LAST UPDATED: 3 Dec 2002 (20021203/ED)

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=> s l8
L9 19 L8

=> s l9 and (inflam? or antiinflam? or arthrit? or rheumat?)
153464 INFLAM?
37853 ANTIINFLAM?
28127 ARTHRIT?
24014 RHEUMAT?
L10 11 L9 AND (INFLAM? OR ANTIINFLAM? OR ARTHRIT? OR RHEUMAT?)

=> d 1-11 bib ab

L10 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 2002:696656 CAPLUS
DN 137:195576
TI SODm therapy for prevention and/or treatment of inflammatory disease
IN Salvemini, Daniela
PA Metaphore Pharmaceuticals, Inc., USA
SO U.S. Pat. Appl. Publ., 22 pp., Cont.-in-part of U. S. Ser. No. 634,152.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 2002128248	A1	20020912	US 2001-997974	20011130
US 6180620	B1	20010130	US 1998-57831	19980409
US 6395725	B1	20020528	US 2000-634152	20000809

PRAI US 1997-50402P P 19970620
US 1998-57831 A3 19980409
US 2000-634152 A2 20000809
AB The present invention relates to pharmaceutical compns. and methods using
such compns. for the treatment of inflammatory disease, specifically rheumatoid arthritis. Such compns.

contain a catalyst for the dismutation of superoxide which is a low mol. wt. org. ligand derived metal complexes that function as mimics of the superoxide dismutase enzyme (SOD mimetics or SODms).

L10 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 2002:27471 CAPLUS
DN 137:103577
TI Amelioration of joint disease in a rat model of collagen-induced arthritis by M40403, a superoxide dismutase mimetic
AU Salvemini, Daniela; Mazzon, Emanuela; Dugo, Laura; Serraino, Ivana; De Sarro, Angela; Caputi, Achille P.; Cuzzocrea, Salvatore
CS University of Messina, Messina, Italy
SO Arthritis & Rheumatism (2001), 44(12), 2909-2921
CODEN: ARHEAW; ISSN: 0004-3591
PB Wiley-Liss, Inc.
DT Journal
LA English
AB The authors investigated the effects of M40403, a synthetic mimetic of superoxide dismutase (SOD), on collagen-induced arthritis (CIA) in rats. CIA was elicited in Lewis rats by intradermal injection of 100 .mu.l of an emulsion of bovine type II collagen (CII) in Freund's incomplete adjuvant at the base of the tail. A second injection was given on day 21. Immunization induced an erosive arthritis of the hind paws. Macroscopic evidence of CIA first appeared as periarticular erythema and edema in the hind paws by days 24-26 after the first injection, with a 100% incidence by days 27. Severity progressed over a 35-day period. Radiog. revealed soft tissue swelling and focal resorption of bone, together with osteophyte formation in the tibiotarsal joint. Histopathol. features included erosion of the articular cartilage at the joint margins and subchondral bone resorption assocd. with bone-derived multinucleated cell-contg. granulomatous lesions. Treatment with M40403 (2-10 mg/kg/day) starting at the onset of arthritis (day 25) ameliorated the clin. signs on days 26-35 and improved the histol. findings in the joint and paw. Immunohistochem. anal. for nitrotyrosine (a marker of peroxynitrite formation) and poly(ADP-ribose) polymerase (PARP; a nuclear enzyme activated by DNA single-strand damage) revealed pos. staining in the inflamed joints of CII-treated rats, suggestive of the formation of peroxynitrite and DNA damage, both of which were markedly reduced by M40403 treatment. Radiog. evidence of protection from bone resorption, osteophyte formation, and soft tissue swelling was apparent in the tibiotarsal joints of M40403-treated rats. Arthritic rats treated with M40403 gained wt. at the same rate and to the same extent as normal, nonarthritic rats. This study shows that a low mol. wt. mimetic of SOD, M40403, attenuates the degree of chronic inflammation, tissue damage, and bone damage assocd. with CIA in the rat, and supports the possible use of SOD mimetics as therapeutic

agents for the management of chronic diseases such as rheumatoid arthritis.

RE.CNT 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2002 ACS

AN 2001:884334 CAPLUS

DN 136:177744

TI Protective effects of M40403, a superoxide dismutase mimetic, in a rodent model of colitis

AU Cuzzocrea, Salvatore; Mazzon, Emanuela; Dugo, Laura; Caputi, Achille P.; Riley, Dennis P.; Salvemini, Daniela

CS Institute of Pharmacology, University of Messina, Messina, Italy

SO European Journal of Pharmacology (2001), 432(1), 79-89
CODEN: EJPHAZ; ISSN: 0014-2999

PB Elsevier Science B.V.

DT Journal

LA English

AB Inflammatory bowel disease is characterized by oxidative and nitrosative stress, leukocyte infiltration, and up-regulation of intercellular adhesion mol. 1 (ICAM-1) expression in the colon. The aim of the present study was to examine the effects of M40403, a superoxide dismutase mimetic, in rats subjected to exptl. colitis. Colitis was induced in rats by intracolonic instillation of trinitrobenzene sulfonic acid (TNBS). Rats experienced bloody diarrhea and significant loss of body wt. At 4 days after TNBS administration, the colon damage was characterized by areas of mucosal necrosis. Neutrophil infiltration (indicated by myeloperoxidase activity in the mucosa) was assocd. with up-regulation of ICAM-1 and expression of P-selectin and high levels of malondialdehyde. Immunohistochem. for nitrotyrosine and poly (ADP-ribose) synthetase showed an intense staining in the inflamed colon. Treatment with M40403 (5 mg/kg daily i.p.) significantly reduced the appearance of diarrhea and the loss of body wt. This was assocd. with a remarkable amelioration of the disruption of the colonic architecture as well as a significant redn. of colonic myeloperoxidase activity and malondialdehyde levels. M40403 also reduced the appearance of nitrotyrosine and poly (ADP-ribose) synthetase immunoreactivity in the colon as well as reduced the up-regulation of ICAM-1 and the expression of P-selectin. The results of this study suggested that administration of a superoxide dismutase mimetic may be beneficial for treatment of inflammatory bowel disease.

RE.CNT 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 2001:257991 CAPLUS
DN 134:274987
TI Substituted pyridino pentaazamacrocycle complexes having superoxide dismutase activity as therapeutic agents
IN Riley, Dennis P.; Neumann, William L.; Henke, Susan L.; Lennon, Patrick; Aston, Karl W.; Salvemini, Daniela; Sikorski, James A.; Fobian, Yvette M.; Grapperhaus, Margaret Lanahan; Kusturin, Carrie L.
PA Monsanto Company, USA
SO U.S., 51 pp., Cont.-in-part of U.S. Ser. No. 57,831.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6214817	B1	20010410	US 1999-398120	19990916
US 6180620	B1	20010130	US 1998-57831	19980409
WO 2001019823	A2	20010322	WO 2000-US25154	20000914
WO 2001019823	A3	20010907		
WO 2001019823	C2	20020926		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1212323	A2	20020612	EP 2000-966722	20000914

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

PRAI US 1997-50402P P 19970620
US 1998-57831 A2 19980409
US 1999-398120 A 19990916
WO 2000-US25154 W 20000914
OS MARPAT 134:274987
AB The present invention relates to compds. which are effective as catalysts for dismutating superoxide and, more particularly, the Mn or Fe complexes of substituted, unsatd. heterocyclic pentaazacyclopentadecane ligands which catalytically dismutate superoxide. The present invention is directed to low mol. wt. catalysts, e.g., I (R = cyclohexyl, StBu, SCH2CH2NH2, etc.), for the dismutation of superoxide radicals (SOD mimics) useful as therapeutic agents for inflammatory disease states and disorders in which superoxide anions are implicated. The SOD mimics are

Mn or Fe complexes of N-contg. 15-membered macrocycle ligands which comprise a substituted, unsatd., N-contg. heterocyclic moiety, most preferably those with cyclohexyl, hydroxyl, alkylthio, alkyl 2-thioacetate, benzyloxy, methoxyarylthio, alkoxycarbonylarylthio, and aryl 2-thioacetate substituents. Preferably, the N-contg. heterocyclic moiety is arom., more preferably, a pyridino moiety. Novel methods of modifying the substituents on the heterocyclic moiety after chelation with the metal ion are also presented. Addn. of substituents to the unsatd. N-contg. heterocyclic moiety on the pentaazacyclopentadecane macrocycle in the above complexes can drastically alter both the superoxide dismutase catalytic activity and increase the efficacy of these complexes as pharmaceutical agents. The compds. of the invention exhibit a marked increase in potency for the prevention or reversal of opioid tolerance as compared to previously disclosed complexes with unsubstituted N-contg. heterocyclic moieties. These compds. are <10 times more potent as pharmaceutical agents for antiinflammatory and analgesic compns. and are as good as, or often better than, the parent unsubstituted compds. in applications such as treatment of endotoxin-induced refractory hypotension. Specific diseases or disorders for which the compds. are claimed as pharmaceutical agents include reperfusion injury to the ischemic myocardium, general inflammation, inflammatory bowel disease, rheumatoid arthritis, osteoarthritis, hypertension, psoriasis, organ transplant rejection, organ preservation, radiation-induced injury, platelet aggregation, stroke, autoimmune diseases, carcinogenesis, severe chronic pain, reversal of opioid tolerance, hyperalgesia, and sepsis. Two exemplary formulations for topical application are presented.

RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 2001:175537 CAPLUS
DN 135:288
TI Pharmacological manipulation of the inflammatory cascade by the superoxide dismutase mimetic, M40403
AU Salvemini, Daniela; Mazzon, Emanuela; Dugo, Laura; Riley, Dennis P.; Serraino, Ivana; Caputi, Achille P.; Cuzzocrea, Salvatore
CS MetaPhore Pharmaceuticals, St. Louis, MO, 63114, USA
SO British Journal of Pharmacology (2001), 132(4), 815-827
CODEN: BJPCBM; ISSN: 0007-1188
PB Nature Publishing Group
DT Journal
LA English
AB M40403 is a low mol. wt., synthetic manganese contg. superoxide dismutase

mimetic (SODm) that removes superoxide anions (.cntdot.O2-) without interfering with other reactive species known to be involved in inflammatory responses (e.g. nitric oxide, NO and peroxynitrite, ONOO-). As such, M40403 represents an important pharmacol. tool to dissect the roles of .cntdot.O2- in acute and chronic inflammation . For this purpose, the pharmacol. profile of M40403 was evaluated in carrageenan-induced pleurisy. Injection of carrageenan into the pleural cavity of rats elicited an acute inflammatory response characterized by: fluid accumulation in the pleural cavity which contained a large no. of neutrophils (PMNs) as well as an infiltration of PMNs in lung tissues and subsequent lipid peroxidn., and increased prodn. of nitrite/nitrate (NOx), prostaglandin E2 (PGE2), tumor necrosis factor .alpha., (TNF.alpha.), interleukin-1.beta. (IL-1.beta.), interleukin-6 (IL-6) and interleukin-10 (IL-10). All parameters of inflammation were attenuated by M40403 except for NOx, PGE2 and IL-10 which remained unaltered. Furthermore, carrageenan induced an upregulation of the adhesion mols. ICAM-1 and P-selectin, as well as nitrotyrosine and poly (ADP-ribose) synthetase (PARS) as detd. by immunohistochem. anal. of lung tissues. The degree of staining for the ICAM-1, P-selectin, nitrotyrosine and PARS was reduced by M40403. These results clearly indicate that .cntdot.O2- plays a crit. role in the development of the inflammatory response by altering key components of the inflammatory cascade. Therefore, synthetic enzymes of SOD such as M40403, offers a novel therapeutic approach for the management of various inflammatory diseases where these radicals have been postulated to play a role.

RE.CNT 76 THERE ARE 76 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 2000:861532 CAPLUS
DN 134:33055
TI Biomaterials modified with superoxide dismutase mimics
IN Ornberg, Richard; Udipi, Kishore; Forster, Dennis; Riley, Dennis; Thurmond, Bruce; Henke, Susan; Brethaur, Kerry; Joardar, Saikat
PA Monsanto Company, USA
SO PCT Int. Appl., 244 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000072893	A2	20001207	WO 2000-US14847	20000526
	WO 2000072893	A3	20010830		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
EP 1185312 A2 20020313 EP 2000-932810 20000526
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
PRAI US 1999-136298P P 19990527
WO 2000-US14847 W 20000526
OS MARPAT 134:33055
AB The present invention relates to biomaterials modified with non-proteinaceous catalysts for the dismutation of superoxide, and processes for making such materials. This modification may be by covalent conjugation, copolymn., or admixt. of the non-proteinaceous catalysts with the biomaterial. The resulting modified biomaterials exhibit a marked decrease in inflammatory response and subsequent degrdn. when placed in contact with vertebrate biol. systems. I was prepd. as a catalyst and was conjugated with a no. of polymers.

L10 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 2000:825276 CAPLUS
DN 134:110013
TI Nonpeptidyl mimetics of superoxide dismutase in clinical therapies for diseases
AU Salvemini, D.; Riley, D. P.
CS MetaPhore Pharmaceuticals, St Louis, MO, 63114, USA
SO Cellular and Molecular Life Sciences (2000), 57(11), 1489-1492
CODEN: CMLSFI; ISSN: 1420-682X
PB Birkhaeuser Verlag
DT Journal; General Review
LA English
AB A review with 22 refs. We have recently shown that M40403 is quite effective in preventing tissue damage in various animal models of inflammation and ischemia-reperfusion injury. In light of the crit. roles of superoxide (SO) in disease and cellular signaling, new highly potent synthetic enzymes or synzymes of superoxide dismutase (SOD) have broad potential as therapeutic agents in the treatment of numerous diseases ranging from acute and chronic inflammation to cardiovascular diseases and cancer.
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 2000:603468 CAPLUS
DN 133:279808
TI Inactivation of catecholamines by superoxide gives new insights on the pathogenesis of septic shock
AU Macarthur, Heather; Westfall, Thomas C.; Riley, Dennis P.; Misko, Thomas P.; Salvemini, Daniela
CS Department of Pharmacological and Physiological Science, Saint Louis University School of Medicine, St. Louis, MO, 63104, USA
SO Proceedings of the National Academy of Sciences of the United States of America (2000), 97(17), 9753-9758
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
AB A major feature of septic shock is the development of a vascular crisis characterized by nonresponsiveness to sympathetic vasoconstrictor agents and the subsequent irreversible fall in blood pressure. In addn., sepsis, like other inflammatory conditions, results in a large increase in the prodn. of free radicals, including superoxide anions (O2.bul.-) within the body. Here the authors show that O2.bul.- reacts with catecholamines deactivating them in vitro. Moreover, this deactivation would appear to account for the hyporeactivity to exogenous catecholamines obsd. in sepsis, because administration of a superoxide dismutase (SOD) mimetic to a rat model of septic shock to remove excess O2.bul.- restored the vasopressor responses to norepinephrine. This treatment with the SOD mimetic also reversed the hypotension in these animals; suggesting that deactivation of endogenous norepinephrine by O2.bul.- contributes significantly to this aspect of the vascular crisis. Indeed, the plasma concns. of both norepinephrine and epinephrine in septic rats treated with the SOD mimetic were significantly higher than in untreated rats. Interestingly, the plasma concns. for norepinephrine and epinephrine were inversely related to the plasma concns. of adrenochromes, the product of the autoxidn. of catecholamines initiated by O2.bul.-. The authors propose, therefore, that the use of a SOD mimetic represents a new paradigm for the treatment of septic shock. By removing O2.bul.-, exogenous and endogenous catecholamines are protected from autoxidn. As a result, both hyporeactivity and hypotension are reversed, generation of potentially toxic adrenochromes is reduced, and survival rate is improved.
RE.CNT 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 2000:304855 CAPLUS
DN 133:99090
TI A nonpeptidyl mimic of superoxide dismutase with therapeutic activity in rats
AU Rotella, David P.
CS Bristol-Myers Squibb, USA
SO Chemtracts (2000), 13(4), 253-255
CODEN: CHEMFW; ISSN: 1431-9268
PB Springer-Verlag New York Inc.
DT Journal
LA English
AB The authors studied the effect of a stable nonpeptide mimic of manganese superoxide dismutase, M40403, in two animals models of diseases assocd. with excess prodn. of superoxide radical anion. It should not be overlooked that M40403 is active in a very challenging model of reperfusion injury, suggesting that SOD mimics may be useful in the acute treatment of human diseases, such as stroke and myocardial infarction.
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 2000:219756 CAPLUS
DN 132:217088
TI A nonpeptidyl mimic of superoxide dismutase with therapeutic activity in rats
AU Salvemini, Daniela; Wang, Zhi-Qiang; Zweier, Jay L.; Samouilov, Alexandre; MacArthur, Heather; Misko, Thomas P.; Currie, Mark G.; Cuzzocrea, Salvatore; Sikorski, James A.; Riley, Dennis P.
CS MetaPhore Pharmaceuticals, St. Louis, MO, 63114, USA
SO Science (Washington, D. C.) (1999), 286(5438), 304-306
CODEN: SCIEAS; ISSN: 0036-8075
PB American Association for the Advancement of Science
DT Journal
LA English
AB Many human diseases are assocd. with the overprodn. of oxygen free radicals that inflict cell damage. A manganese(II) complex with a bis(cyclohexylpyridine)-substituted macrocyclic ligand (M40403) was designed to be a functional mimic of the superoxide dismutase (SOD) enzymes that normally remove these radicals. M40403 had high catalytic SOD activity and was chem. and biol. stable in vivo. Injection of M40403 into rat models of inflammation and ischemia-reperfusion injury protected the animals against tissue damage. Such mimics may result in better clin. therapies for diseases mediated by superoxide radicals.

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L10 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2002 ACS
AN 1999:27704 CAPLUS
DN 130:76192
TI Analgesic methods using synthetic coordination compound catalysts for the dismutation of superoxide radicals and the prevention of opioid tolerance
IN Salvemini, Daniela
PA G.D. Searle & Co., USA
SO PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9858636	A1	19981230	WO 1998-US12231	19980615
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
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AU 733415	B2	20010517		
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
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OS MARPAT 130:76192
AB Synthetic low mol. wt. coordination compd. catalysts for the dismutation of superoxide are potent analgesics that are effective in elevating the pain threshold in hyperalgesic conditions such as arthritis, and also operate to prevent or reserve tolerance to opioid analgesics.
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ALL CITATIONS AVAILABLE IN THE RE FORMAT